

Amendments to the Title and Specification

Please amend the title of the invention to read as follows on pages 1 and 2 of the application:

A MECHANISM FOR SELECTING REPRESENTATIVES FROM PROGRAM PATCH TREES BASED ON USER ROLES

Please replace numbered paragraphs in the specification with the correspondingly-numbered corrected paragraphs presented below:

[0010] Briefly summarized, an embodiment of the invention may be found in a method of selecting program patches for installation by human or machine patch recipients into computer systems, where the patches are organized into patch trees ~~chains~~ each having a root. The method comprises the steps of searching for a patch that corrects a particular defect or that has a particular property or both; examining additional patches, if any, sharing the same patch tree ~~chain~~ as any such patch found as a result of the search and occupying a position on the shared patch tree ~~chain~~ between that of any such patch found and the root of the patch tree ~~chain~~; and presenting one or more patches, including any such patch found and examined patches that satisfy one or more specified conditions determined by the nature of each patch and the identity of the patch recipient.

[00104] With reference to Fig. 17, a second embodiment of the present invention is presented which introduces several additional strategies into the process of searching for a suitable set of patches. In this variation, the patch trees ~~chains~~ are searched in the forward direction, from a particular patch that is known to correct a particular defect or to introduce a particular property forward through the patch tree ~~chain~~ to its root (from left to right in the figures, rather than from right to left as taught above), checking each patch for its suitability for a particular user, given the degree of reliability that is indicated by the nature of the user's application.

[00109] An "external user" is considered to be a system administrator representing a particular company. The external user will be able to view and search for patches which have a visibility attribute of "All" and may download those patches which have an availability attribute of "All." When presenting representative patches from located patch trees ~~chains~~ to this type of user, it is desirable to make a conservative recommendation based upon the patch ratings as well as to show the latest version on the tree ~~chain~~. But some external users may ask to receive, in addition, a less conservative but more current recommendation.

[00110] An "internal user" is considered to be an internal patch expert, locating patches on behalf of an external client. The internal patch expert is allowed to search and view patches which have "Limited" visibility or availability. Again, when displaying representative patches from located patch trees ~~chains~~, a conservative recommendation is made, but a less conservative recommendation of the latest acceptable patches may also be made. The list of patches which such an "internal user" is permitted to view may also differ from an external user's view as a result of the internal user's expanded authorizations. It is thus possible to define a wide variety of real and automated "users" of the system that are assigned different combinations of rating, visibility and availability values.

[00122] The user is next presented with representative patches selected from this specific set of patch trees ~~chains~~ at step 1718 in Fig. 18. In an embodiment of the invention, the user may be presented with patch recommendations organized into two, three, or more columns. For example, and as shown at 1720 in Fig. 18, the patches may be presented in three columns to a user who is not particularly concerned about risk, since the computer is the user's personal machine and is not assigned any "mission critical" tasks. But if the user wished to avoid any significant risk, then the third column of patches would not be included. (See the programs in the Appendix for examples of different types of patch searches.)